



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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March 13, 2001

Chuck Semborski, Environmental Supervisor
Energy West Mining Company
P.O. Box 310
Huntington, Utah 84528

Re: Cottonwood Fan Portal Phase I Bond Release, Energy West Mining Company,
Cottonwood/Wilberg Mine, C/015/019-BR00D-1, O

Dear Mr. Semborski:

The Division has completed our review of your latest proposed amendment to the Cottonwood Mine MRP, which has been submitted in conjunction with the July 6, 2000 submittal for Phase I Bond Release at the Cottonwood Fan Portal, C/015/019-BR00D. There remain discrepancies between the proposed, amended Reclamation Plan and the work that has actually been done. These deficiencies must be adequately resolved before the Division can make a finding on your application for Bond Release. A copy of the Division's technical analysis is enclosed for your information. Please respond to these deficiencies within 90 days or the Division will return your application.

If you have any questions regarding the requirements of the technical analysis, please call Jim Smith at 801-538-5262, or me at 801-538-5258.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Pamela Grubaugh-Littig', written over a large, stylized circular flourish.

Pamela Grubaugh-Littig
Permit Supervisor

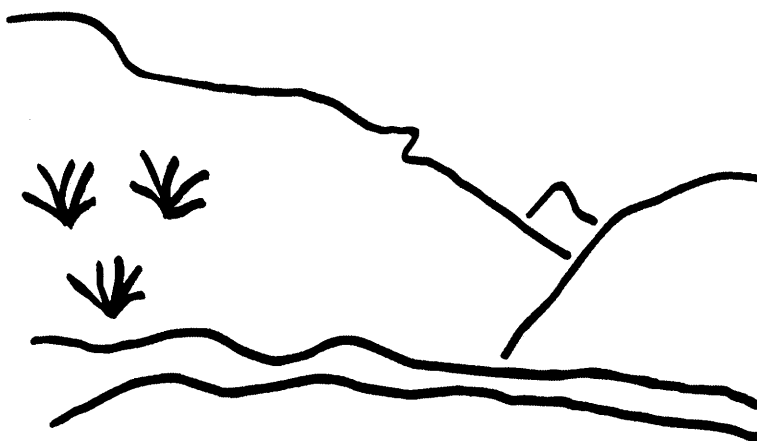
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Enclosure:

cc: Price Field Office

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State of Utah



Utah Oil Gas and Mining

Coal Regulatory Program

Cottonwood - Wilberg Mine
Cottonwood Fan Portal Phase I Bond Release
C/015/019-BR00D-1
Technical Analysis
March 7, 2001

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INTRODUCTION

INTRODUCTION

An application for Phase I Bond Release for the Cottonwood Fan Portal area was received July 6, 2000. The Division reviewed that application and found several deficiencies, so the information in the application was not adequate to meet the minimum requirements of the Coal Mining Rules. On December 14, 2000, the permittee submitted responses to the deficiencies. The following is the TA of that response, and there are several remaining deficiencies because of incomplete or inadequate responses.

The Cottonwood Fan Portal site was initially disturbed under an exploration permit in anticipation of constructing a fan portal; however, construction of the fan portal was abandoned when extensive burnt coal was found. Cast-off material below the site was reclaimed in 1981. Reclamation of the Cottonwood Fan Portal area was initiated in November of 1998. The reclaimed cast-off material below the site was not redisturbed in 1998. Remaining concerns are carbonaceous material that remains exposed where reclamation was done and action taken to protect the redistributed soil from wind and water erosion.

A historical abandoned mine (Old Johnson Mine) is located within the Cottonwood Fan Portal reclamation area. Historical remnants included an old wagon road and two sealed portals. The old wagon road was upgraded and utilized for hauling topsoil during reclamation of the fan portal area in 1998 and afterwards was reclaimed, leaving an access trail to the two historical Johnson portals. Retention of this access road by the Johnson Mine portals is another remaining concern.

The Permittee should make the necessary changes to the Mining and Reclamation Plan, then resubmit the bond release application.

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Revised: March 7, 2001

INTRODUCTION

SUMMARY OF OUTSTANDING DEFICIENCIES

SUMMARY OF OUTSTANDING DEFICIENCIES

The Technical Analysis regarding the proposed permit changes is not complete at this time, pending submittal of additional information by the Permittee and further review by the Division, to address outstanding deficiencies in the proposal. A summary of those outstanding deficiencies is provided below. Additional comments, concerns, and deficiencies may also be found within the analysis and finding make in the Draft Technical Analysis that have not been presented in this summary. Upon finalization of this review, any outstanding deficiencies will be evaluated for compliance with the regulatory requirements. Such deficiencies may be conditioned to the requirements of the permit issued by the Division, result in denial of the proposed permit changes, or may result in other executive or enforcement actions as deemed necessary by the Division at that time to achieve compliance with the Utah Coal Regulatory Program.

Accordingly, the permittee must address those deficiencies as found within this Draft Technical Analysis and provide the following, prior to approval, in accordance with the requirements of:

- R645-301-121.200 and R645-301-542.300**, The permittee must give the Division the following: 1) identical copies of Plate 5-7, 2) define the term existing ground on Plate 5-7 (does the term existing ground mean the premining or the operational surface?) and 3) show the location of the cross section on Plate 5-7 on Plate 5-1. 9
- R645-301-231.400**, Plate 5-4 requires revision to accurately portray the new subsoil pile configuration. 13
- R645-301-240**, The narrative and Plates submitted must correlate, see the above technical analysis for details (i.e. Plate 5-5 and the last sentence of page 4, Soils Section Volume 11, Cottonwood Fan Portal; Revised Plate 5-7; and the last sentence of the first paragraph of the revised page 5.) 13
- R645-301-242.130**, The action taken to protect the redistributed soil from wind and water erosion should be accurately reflected in the submittal. 13
- R645-301-542.600**, The permittee must show that the section of the CFP access road by the Johnson Mine portals must be retained to preserve the historic Johnson Mine portals. The permittee did not respond to this deficiency in the Dec. 14, 2000 submittal. 14
- R645-301-553.300**, The permittee must show that all coal seams, acid- and toxic-forming materials, and combustible materials exposed during the explorations have been properly covered. Specifically the permittee must show 1) the location of all coal seams on the cross sections so the Division can make a finding that all coal seams have been properly backfilled, 2) the testing standard used to determine that material with BTU's ranging from 3,800 to 4,900 would not be combustible and 3) what methods were used to determine that the material in the carbonaceous layers is not coal. 10

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SUMMARY OF OUTSTANDING DEFICIENCIES

ENVIRONMENTAL RESOURCE INFORMATION

SOILS RESOURCE INFORMATION

Regulatory Reference: 30 CFR Sec. 783.21, 817.200(c); R645-301-220, -301-411.

Analysis:

Soil Characterization

1997 Soil Samples Cottonwood Fan Portal Area. During June 1997, six soil samples were taken from the topsoil (CTW0697), subsoil (CTW0597), 1981 re-vegetated slope (CTW0797 & 0897), bench-level terrace 1 (CTW0997), and a composite sample for terraces 2, 3 and 4A (CTW1097). Sample results are contained in Attachment D, Soil Sampling Analysis Report. Sample locations are presented on Plate 5-5, Drawing KS1710D. As reported by the laboratory results, sample materials meet the criteria of the Division's guidelines for topsoil and overburden¹ and show no toxic- or acid-forming characteristics. Soil pH values range from 7.6 to 7.9 which are indicative of calcareous conditions. In fact, CaCO₃ values range from 33.7% to 56.2%. EC values range from 0.5 mmhos/cm to 1.51 mmhos/cm which are well below the saline soil limit of 4 mmhos/cm. Based on the SAR values (0.82 to 3.31), no sodium problem is present. Adjusted SAR could not be calculated because the data sets did not contain bicarbonate values. Soil textures are predominantly loam, sandy loam and silt loam with the silty loam textures found on the stripped terraces. Negligible amounts of Selenium and Boron were analyzed in the samples.

Findings:

Information provided in the application is adequate to meet the requirements of this section of the regulations.

¹Leatherwood, J., and Duce, D., 1988. Guidelines for Management of Topsoil and Overburden for Underground and Surface Coal Mining. State of Utah Department of Natural Resources, Division of Oil, Gas and Mining.

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ENVIRONMENTAL RESOURCE INFORMATION

RECLAMATION PLAN

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GENERAL REQUIREMENTS

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

Analysis:

In the copy of the draft notice that is scheduled to be published in the Emery County Progress the permittee states the following:

- The said area, located in E1/2 of Section 25, Township 17 South, Range 6 East, has met the regulations of the R645 Utah Coal Rules in regards to Phase I bond release (R645-301-880.300)
- A surety bond is filed with the Division of Oil, Gas and Mining in the amount of \$2,071,098.00, and is payable to the State of Utah, Division of Oil, Gas and Mining (DOGM), and the Office of Surface Mining Reclamation and Enforcement (OSM). PacifiCorp requests that the fractional bond liability amount for the Cottonwood Fan Portal area be reduced 60% or \$58,194.00 to comply with the R645-301-880.300 regulation. Total surety bond held for this area will be reduced to \$38,796.00

The information in the newspaper ad is sufficient for the public to decide the location of the bond release area.

Findings:

The requirements of this section of the regulations are considered adequate in regard to the proposed bond release.

POSTMINING LAND USES

Regulatory Reference: 30 CFR Sec. 784.15, 784.200, 785.16, 817.133; R645-301-412, -301-413, -301-414, -302-270, -302-271, -302-272, -302-273, -302-274, -302-275.

Analysis:

The part of the Cottonwood Fan Portal access road that is by the old Johnson Mine portals was not reclaimed because reclamation would cover the historic portals. The permittee needs to show that

retention of that section of the Cottonwood Fan Portal access road is allowed as part of the post mining land use. See the Road Systems and Other Transportation Facilities section of this TA for details.

Findings:

Information provided in the proposed amendment is not considered adequate to meet the requirements of this section. See the Road Systems and Other Transportation Facilities section of this TA for details.

APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR Sec. 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-270, -301-271, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, -301-542, -301-731, -301-732, -301-733, -301-764.

Analysis:

The requirements for approximate original contour restoration are couched in terms of backfilling and grading requirements. Those requirements include the following:

- Minimize off-site effects
- Achieve a final surface configuration that closely resembles the general surface configuration of the land before mining
- Provide a subsurface foundation for a vegetative cover capable of stabilizing the surface from erosion
- Support the postmining land use.

Off-site effects usually involve hydrologic issues. A full analysis of the hydrologic requirements will not be done in this section. If the permittee meets the general hydrologic requirements then the Division usually considers that the off-site impacts will be minimized. The one hydrologic issue discussed in the AOC requirements is that the surface configurations blend into and complement the drainage pattern of the surrounding terrain.

The Division found that the reclaimed surface blends into and complements the drainage patterns of the surrounding terrain because:

- Few established flow ways exist in the surrounding area. Therefore, few flow ways were created in the area.
- Most of the water flows across the surface which is similar to what happens in the surrounding area.

RECLAMATION PLAN

The reclaimed surface must closely resemble the general surface configuration of the land before mining. This requirement does not have specific standards that must be met. The Division makes this determination by using the judgement of its staff members. The staff has reviewed the postmining landscape and found that it resembles the surrounding terrain.

The Division usually considers the requirements that the subsurface foundation can support vegetative and is capable of stabilizing the surface from erosion are met if the reclamation plan meets the revegetation requirements. The ability for the reclaimed site to support the postmining land use is discussed in other sections of this TA.

Some information on how the permittee reclaimed the area to meet the approximate original contour requirements is not clear and concise. Prior to approval the permittee must resolve the following deficiencies:

- The copies of Plate 5-7 that the Division received on Dec. 14, 2000 are not identical. One plate shows the existing ground superimposed on the reclaimed surface while the other map does not show the superimposed surface.
- The locations of the reclamation cross sections on Plate 5-7 are not shown on Plate 5-1.
- The term existing ground line is not defined on Plate 5-7. The permittee needs to state if the existing ground line is the premining or operational surface.

Findings:

Information provided in the proposed amendment is not considered adequate to meet the requirements of this section. Prior to approval, the permittee must provide the following in accordance with:

R645-301-121.200 and R645-301-542.300, The permittee must give the Division the following: 1) identical copies of Plate 5-7, 2) define the term existing ground on Plate 5-7 (does the term existing ground mean the premining or the operational surface?) and 3) show the location of the cross section on Plate 5-7 on Plate 5-1.

BACKFILLING AND GRADING

Regulatory Reference: 30 CFR Sec. 785.15, 817.102, 817.107; R645-301-234, -301-537, -301-552, -301-553, -302-230, -302-231, -302-232, -302-233.

Analysis:

The Division found that the permittee met the AOC requirements for the Cottonwood Fan Portal area. Those findings are in the AOC section of this memo.

RECLAMATION PLAN

During the field visit conducted on August 24, 2000, the Division found exposed coal rider seams in the Cottonwood Fan Portal area. The Division and the permittee discussed the issue, but did not make any conclusions.

On August 25, 2000, the Division's staff discussed the coal seam issue. The Division is concerned that the coal seams or high carbon content shale beds could consist of combustible materials or the materials could be acid- or toxic-forming.

The permittee needs to test the material before the Division can make a finding. If the material is combustible or acid- toxic-forming then the permittee must cover the material.

In the Dec. 14, 2000, submittal the permittee states the following:

During the excavation process, the Hiawatha coal seam was exposed at the Cottonwood Fan Portal to determine seam characteristics and to gain engineering data for foundation analysis (referred to as Terrace 1.) Backfill and grading during the reclamation process completely covered the exposed coal seam. Above the Hiawatha coal seam, several carbonaceous sequences were also exposed. PacifiCorp conducted sampling to determine if the exposed carbonaceous layers were either acid or toxic forming materials. Results of the sampling indicate that the two sites sampled, refer to Map 5-5 soils sites CFP0200 and CFP0400, are not considered acid or toxic forming based upon the criteria outlined in the Division (refer to R645-301-200 Soils: Appendix D.) In addition, PacifiCorp analyzed the samples to determine if the combustible nature of the material. Results of the testing indicate that the BTU's of the two samples range from 3,800 to 4,900 and would not be considered combustible.

The permittee did not show the location of the coal seams on the cross sections as requested. That information is needed for the Division to make a finding that all coal seams have been properly backfilled.

The permittee states that no other coal seams exist within the area. During the field inspection on August 24, 2000 the Division's staff noted several outcrops that appeared to have coal. In the Dec. 14, 2000, submittal the permittee said that those outcrops contained carbonaceous materials not coal. The Division needs to know what methods were used to determine that the material was rock and not coal. In addition the Division needs to know what testing standards were used to determine that material with BTU's ranging from 3,800 to 4,900 would not be combustible.

Findings:

Information provided in the proposed amendment is not considered adequate to meet the requirements of this section. Prior to approval, the permittee must provide the following in accordance with:

R645-301-553.300, The permittee must show that all coal seams, acid- and toxic-forming materials, and combustible materials exposed during the explorations have been

RECLAMATION PLAN

properly covered. Specifically the permittee must show 1) the location of all coal seams on the cross sections so the Division can make a finding that all coal seams have been properly backfilled, 2) the testing standard used to determine that material with BTU's ranging from 3,800 to 4,900 would not be combustible and 3) what methods were used to determine that the material in the carbonaceous layers is not coal.

MINE OPENINGS

Regulatory Reference: 30 CFR Sec. 817.13, 817.14, 817.15; R645-301-513, -301-529, -301-551, -301-631, -301-748, -301-765, -301-748.

Analysis:

There are no mine openings on the site.

Findings:

The requirements of this section of the regulations are considered adequate in regard to the proposed Phase I bond release.

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-240.

Analysis:

The five-acre Cottonwood Fan Portal site was initially disturbed under an exploration permit in anticipation of constructing a major portal facility. However, this site was never developed. After the exploratory disturbance, the cast-off material below the site was contemporaneously reclaimed in 1981. Final reclamation of the Cottonwood fan portal area was initiated and completed in November of 1998. The slope reclaimed in 1981 was not re-disturbed and remains as part of the final configuration.

An historical abandoned mine (Old Johnson Mine) is located within the Cottonwood fan portal reclamation area. Historical remnants include an old wagon road and two sealed portals. The old wagon road was upgraded and utilized for hauling topsoil during reclamation of the fan portal area in 1998. Afterwards, the roadway was reclaimed. The portals remain exposed at the landowner's request.

Soil Redistribution

Backfilling and grading consisted of placing soil on each of the five terraces and the access road to the Old Johnson Mine site (see Drawing KS1710D). The topsoil and subsoil were used interchangeably. The topsoil stockpile was completely utilized and its location was reclaimed. This submittal indicates that 2,771 cubic yards of topsoil and subsoil were used in the reclamation of the fan

RECLAMATION PLAN

portal. Approximately 7,023 cubic yards of subsoil remains. It has been recontoured and revegetated.

Volume of Soil used in the Cottonwood Fan Portal Reclamation (cubic yards)

	Projected (07-08-00)	As- Built (12-14-00)
Topsoil	1061	1061
Subsoil (includes access road)	2412	1710
Total	3473	2771

The approved MRP shows cross-sectional views for soil placement on the reclaimed terraces (Plate 5-3, Sheets 1 and 2) and the Old Johnson portal access road (Plate 5-7) which correspond to stations on Plate 5-5. Plate 5-3 Sheet 2 of 2 illustrates a typical cross section of the Cottonwood Fan Portal and indicates that bench areas should have received 12 inches of topsoil and 1½:1 slopes should have received six inches of topsoil. Plate 5-3 was not revised with this submittal. But Plate 5-3 no longer reflects the site conditions. Plate 5-3 must be revised to show a typical cross-section as constructed. (The narrative on page 6 was changed to eliminate reference to minimum topsoil placement).

Plates 5-7 and 5-5 were revised with this submittal. The approved MRP has a mass balance table on Plate 5-5 which indicated that a total of 2581.4 cubic yards of soil was projected to be used for terraces 1, 2, 3, 4 and 4a. The revised MRP refers to this table in the last sentence of page 4 (Soils Section Volume 11, Cottonwood Fan Portal.) However, the "As-Built" Plate 5-5 just submitted does not contain this information. Reference to the information should be clarified. The revised Plate 5-5 is an as-built document and therefore does not include the mass balance table. Other changes to Plate 5-5 are the removal of the topsoil pile and revision of the subsoil pile and changes to the delineation of the 'undisturbed old Johnson Mine site.'

A mass balance table on Plate 5-7 projected that 666.58 cubic yards would be used for the Johnson Mine Access Road. The revised Plate 5-7 (Cottonwood Fan Portal Access Road/Final Reclamation Cross Sections) indicates that only 160.08 cubic yards of material were used from the subsoil pile to reclaim the access road. The difference is accounted for from stations 3+32, 3+82 and 4+32 where rock outcrops were left exposed to blend into the terrain. However, the revised page 5 of Soils Section (Volume 11, Cottonwood Fan Portal) states in the last sentence of the first paragraph that "667 cubic yards of subsoil will be used in the reclamation of the road." This statement and Plate 5-7 do not agree.

Soil Stabilization and Erosion Control

Various size rocks and boulders were used on the surface for erosion control and slope stability as well as for aesthetics. No evidence of slope sloughing was noted in a field visit on January 4, 2001.

The soil was treated with a tackifier and straw mulch with netting used after seeding (rather than curlex blankets as indicated on page 6). Please revise the narrative accordingly.

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One particular location in the vicinity of the Johnson Mine site requires monitoring by the Permittee and Division to protect the soil from further erosion. This is a straight drop chute which carries water from above the reclaim site into the disturbed area with great force. This is in the vicinity of the disturbed area perimeter as it comes west and then north above the Johnson Mine Site. This also happens to be the location of the Johnson Mine Site Coal Chute. During a site visit on January 4, 2001, the Permittee agreed to monitor this location frequently and take steps to ensure that a large gully does not form. The Permittee is expecting that as plants take root, the erosion will cease.

Slope Beneath Fan Portal Area

The contemporaneously reclaimed slope at the base of the fan portal area remained as final reclamation. This slope was disturbed during the reclamation of the Cottonwood Fan Portal terraces and will therefore remain as final reclamation.

Remaining Subsoil Piles

Both the topsoil and subsoil piles are shown with soil volumes calculated using baseline cross-section stations as shown on the MRP Plate 5-4. The salvaged topsoil pile contained approximately 1,061 cubic yards all of which was used in the final reclamation of the fan portal. The subsoil pile contained approximately 8,733 cubic yards of soil. Approximately 7,023 cubic yards of soil remains in the subsoil stockpile after reclaiming the Cottonwood fan portal area. Plate 5-4 requires revision to accurately portray the new subsoil pile configuration.

The remaining subsoil stockpile was pocked and revegetated. It was not treated with a tackifier.

This submittal indicates that the remaining stored soil will be used to reclaim the Cottonwood overland tube conveyor, intake and diesel portals, and Trail Mountain Mine if needed.

Information provided in the application does not accurately reflect the activity as it occurred during reclamation. Therefore the information does not meet the requirements of this section of the regulations. Prior to approval, the applicant must supply the following in accordance with:

R645-301-240, The narrative and Plates submitted must correlate, see the above technical analysis for details (i.e. Plate 5-5 and the last sentence of page 4, Soils Section Volume 11, Cottonwood Fan Portal; Revised Plate 5-7; and the last sentence of the first paragraph of the revised page 5.)

R645-301-242.130, The action taken to protect the redistributed soil from wind and water erosion should be accurately reflected in the submittal.

R645-301-231.400, Plate 5-4 requires revision to accurately portray the new subsoil pile configuration.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR Sec. 701.5, 784.24, 817.150, 817.151; R645-100-200, -301-513, -301-521, -301-527, -301-534, -301-537, -301-732.

Analysis:

Reclamation

The as-builts for the reclaimed CRP access road are incorrect. See the approximate original contour section of this TA for details.

Retention

The part of the CRP access road that is by the old Johnson Mine portals was not reclaimed because reclamation would cover the historic portals. The permittee needs to show that retention of that section of the CRP access road is allowed as part of the post mining land use.

The reasons why the permittee must show that the part of the CRP access road can be retained as part of the post mining land use are in the engineering section of Volume 11 of the MRP are as follows:

- Since the road was used are part of the Cottonwood Fan Portal exploration project the permittee is required to reclaim the road even though the area was originally disturbed prior to the enactment of SMCRA. A post SMCRA site is any site where coal mining was conducted on or after August 3, 1977.
- R645-301-542.600 requires that the permittee reclaim all roads not to be left as part of the postmining land use. Unless the permittee shows that the segment of the road is needed to preserve the historic site the road must be reclaimed.

The permittee did not respond to this deficiency in the Dec. 14, 2000 submittal.

Findings:

Information provided in the proposed amendment is not considered adequate to meet the requirements of this section. Prior to approval, the permittee must provide the following in accordance with:

R645-301-542.600, The permittee must show that the section of the CFP access road by the Johnson Mine portals must be retained to preserve the historic Johnson Mine portals. The permittee did not respond to this deficiency in the Dec. 14, 2000 submittal.

RECLAMATION PLAN

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-750, -301-751, -301-760, -301-761.

Analysis:

Acid and Toxic-forming Materials

See the discussion in the Backfilling and Grading Section above.

Discharges Into an Underground Mine

No underground mine openings exist in the Cottonwood Fan Portal Phase 1 reclamation site. Therefore, water does not discharge into underground mine openings at this site. However, seal portals do exist in the Johnson mine site.

Gravity discharges

There are no underground mine openings in the Cottonwood Fan Portal Phase 1 reclamation site. Therefore, water does not discharge from underground mine openings at this site. However, seal portals do exist in the Johnson mine site.

Diversions

No modification or reclamation has been done to the two diversion ditches: the undisturbed drainage ditch (UD3) across the top of the site and the disturbed drainage ditch (DD4) through the area reclaimed in 1981. No further reclamation is planned for these two ditches.

Sediment Control Measures

Plate 5-5 in the MRP shows a silt fence (also described on Soils - page 6) at the top of the area revegetated in 1981. The revised Plate 5-5 no longer shows this silt fence, but this is in agreement with Plate 3-13, the Hydrological Map, which does not show this silt fence.

Hydroseed and hydromulch were placed on slopes and benches where soils were redistributed, as committed to in the MRP. Some areas were also treated with a tackifier and straw mulch with netting after seeding.

Impoundments

Two sediment basins will remain on the site until erosion is control by vegetation.

Findings:

This section of the proposed Phase I Bond Release is considered adequate in regard to the requirements of the regulations.

STABILIZATION OF SURFACE AREAS

Regulatory Reference: 30 CFR Sec. 817.95; R645-301-244.

Analysis:

See the discussion under Soil Stabilization and Erosion Control in the Topsoil and Subsoil Section.

Findings:

Information provided in the application is not adequate to meet the requirements of this section of the regulations. See the Topsoil and Subsoil Section.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

Analysis:

Affected Area Boundary Maps

Plate 5-5, Drawing KS1710D Cottonwood Fan Portal Surface Facilities Map Phase I Reclamation, shows the area that the permittee request Phase I bond release. The permittee shows the areas that have been interim revegetation, final vegetation and final reclamation. The drainage controls, French drains, have also been shown.

Plate 5-5 shows the areas for which Phase I bond release has been sought. The undisturbed Johnson Mine site is clearly shown as an undisturbed island.

On Plate 5-5 the permittee lists the dates for some reclamation activities. The terraces were backfilled on November 1998 and the revegetated area had final reclamation done in 1981.

Bonded Area Map

The Division considers the affected area map to be equivalent to the bonded area map for the Cottonwood Fan Portal.

RECLAMATION PLAN

Reclamation Backfilling and Grading Maps

The deficiencies with the backfilling and grading maps were discussed in the backfilling section of this TA.

Reclamation Facilities Maps

The facilities associated with the Cottonwood Fan Portal area are shown on Plate 5-5. Those facilities include ditches and sediment basins.

Final Surface Configuration Maps

The final surface configuration is shown on Plate 5-5 and the cross section shown on Plate 5-5 and Plate 5-7 show the final surface configuration. Problems with Plate 5-7 were discussed in the backfilling and grading section.

Reclamation Monitoring and Sampling Location Maps

The permittee did not show any monitoring or sampling locations on the maps. UPDES UT0022896 002 is the discharge from the sedimentation pond and is identified in the Hydrologic Section - Volume 9 for the PacifiCorp mines. Reports submitted to the Division show this pond has never discharged.

Findings:

The requirements of this section of the regulations are considered adequate in regard to the proposed Phase I bond release.

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

Determination of bond amount

The permittee states that they want to reduce the bond amount for the area from \$58,194 to \$38,796.

Findings:

The requirements of this section of the regulations are considered adequate in regard to the proposed Phase I bond release.